

Lesson 3: Learn about the style and the anatomy of the Charles Fish Barn.

Goals:

To help students learn about the English style barn that the Charles Fish Barn exemplifies.

To help students learn the names of the various wooden timbers that are the building blocks of the Charles Fish Barn.

To help students understand some of the terminology associated with the structure of the Charles Fish Barn.

Curriculum Links: Social Studies, History

New Jersey State Education Standards:

This lesson can be used to help students in a range of grade levels develop the understandings and skills relating to the following standard.

6.4: All Students will demonstrate knowledge of United States and New Jersey history in order to understand the life and events in the past and how they relate to the present and future.

(The English style barn is one of several that were used extensively by early settlers in New Jersey. This lesson helps students understand farming life, the predominant life-style at the time, in central New Jersey in the early 1870s. This can then be compared to life in the same area today and how structures like the Charles Fish Barn and places like Howell Living History Farm take on new, educational roles once their original roles in the life of families and the community are finished.)

Lesson Description:

Step 1: Reproduce and give students the two-page handout on the Anatomy of the Charles Fish Barn.

Step 2: Give students an opportunity to read and study the handout.

Step 3: Give students a copy of the barn diagram that is not labeled. Ask them to label the following things on their diagrams.

- a. Label at least one post on each of the four diagrams.
- b. Label at least two girts on the top diagram.
- c. Label at least one brace on the top and two bottom diagrams.
- d. Label at least one rafter on the top and two bottom diagrams.
- e. Label a purlin on the top and two bottom diagrams.
- f. Label at least one Queen post strut on each of the two bottom diagrams.
- g. Label a plate on the top and two bottom diagrams.
- h. Label at least one tie beam on the two bottom diagrams.
- i. Label the swing beam on the diagram of Bent D. (What was the purpose of the swing beam?)
- j. Label the five bays on the top and middle diagrams.
- k. Label several studs on the middle and bottom diagram of Bent A. (Discuss the purpose of the studs.)
- l. Label the doors you find on the top and middle diagrams. (Think about and discuss who or what would use each door and for what purpose.)

Step 4: To learn more about English barns visit the Howell Farm website and check out the information about the Henry Philips Barn and its restoration. Also check the information on timber framing to learn about the pegged mortise and tenon joints that hold the pieces together. When visiting Howell Farm, see if you can identify the three English barns that make up the main barn. A three-bay and a four-bay English barn make up the basic "L" shape of the barn and a two-bay English barn (or two bays of a larger barn) was moved to enlarge the three-bay barn in the 1940s. When visiting the barn see if you can identify some of the timbers by name. Not all can be seen but you should be able to find some posts, girts, tie beams, and braces and in places you can see the pegs that hold together the mortise and tenon joints.

Anatomy of the Charles Fish Barn ca. 1850

